

**SEMICONDUCTOR PACKAGE WITH SUBSTRATE COUPLED TO A
PERIPHERAL SIDE SURFACE OF A SEMICONDUCTOR DIE**

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Abstract of the Disclosure

Semiconductor packages are disclosed. One semiconductor package includes a semiconductor die with an active surface, an opposite inactive surface, and four peripheral side surfaces. A substrate of the semiconductor package is coupled to one side surface of the semiconductor die. Bond pads of the active surface are coupled to a substrate first surface that is coplanar with the active surface. External interconnects, e.g., solder balls, are formed on a second substrate surface that is perpendicular to the active surface. An insulating layer, e.g., and encapsulant, together covers the active surface and the substrate first surface. An alternative semiconductor package includes two substrates, each attached to a respective one of two opposed side surfaces of the semiconductor die. The remaining two side surfaces of the semiconductor die are exposed. The external interconnects are formed on a third substrate surface that is coplanar with the inactive surface of the semiconductor die.